FILOZOFICKÁ FAKULTA
Univerzita Karlova

Ústav anglického jazyka a didaktiky

BAKALÁŘSKÁ PRÁCE

Kateřina Fuková

Slabé formy gramatických slov u českých mluvčích angličtiny

Weak-form grammatical words in Czech speakers of English

Praha, 2020

Vedoucí práce: doc. Mgr. Radek Skarnitzl, Ph.D.

Acknowledgments

On this page, I would like to express my gratitude towards doc. Mgr. Radek Skarnitzl, PhD., whose guidance, advice and an overall welcoming approach made the process of writing my bachelor thesis an utmost congenial experience; and in every way, one much less terrifying than I ever imagined it to be. I sincerely hope this was not the last time we collaborated. Thank you.

Declaration of Authorship

Hereby I declare that the following BA thesis is my own work for which I used only the sources and literature mentioned.

Prague, May 10th, 2020

Signature 

Abstract

Adopting processes of connected speech into one's English pronunciation has proven challenging for EFL learners, and Czech speakers are no exception. The objective of the present thesis was to find, whether there is any connection between the level of pronunciation and ability to reduce grammatical words to their weak forms. The first section of this paper describes the contemporary understanding of speech rhythm and connected speech processes, and summarizes existing research in the field of acquisition of these pronunciation practices. In the empirical portion of this thesis, we analysed recordings of 20 native Czech speakers, all of which were women. Speakers were separated into 2 different groups according to their pronunciation capabilities. No general conclusions can be drawn from the evaluated material, as the groups showed many different tendencies. In some cases, the group with an ambiguous accent performed better than the group with a typically Czech accent and this tendency was never completely reversed. On many occasions, however, the groups behaved identically.

Key words: connected speech processes, weak forms, weak-form grammatical words, grammatical words, Czech speakers of English, accent in English

Abstrakt

Osvojit si procesy souvislé řeči v angličtině je pro nerodilé mluvčí náročným úkolem a Češi v tomto ohledu nejsou výjimkou. Cílem této práce bylo prozkoumat možné souvislosti mezi úrovní přízvuku českým mluvčích a jejich schopností redukovat gramatická slova na jejich slabé formy. První část této bakalářské práce předkládá současné porozumění řečovému rytmu a procesům souvislé řeči a dále shrnuje dosavadní výzkum v poli akvizice těchto výslovnostních postupů. V empirické části jsme analyzovali nahrávky dvaceti žen, které jsou všechny rodilými mluvčími češtiny. Účastnice byly rozděleny do dvou skupin podle jejich schopností ve výslovnosti. Zkoumaný materiál nenabízí žádné obecné závěry, jelikož skupiny vykazovaly různé chování. U několika slov užívala slabé formy více skupina s neurčitým přízvukem než skupina s typicky českým přízvukem a tato tendence nebyla nikdy opačná. V několika případech se však skupiny chovaly téměř identicky.

Klíčová slova: procesy souvislé řeči, slabé formy, slabé formy gramatických slov, gramatická slova, čeští mluvčí angličtiny, anglický přízvuk

Table of Contents

List of Tables

List of Figures

List of Used Abbreviations

EFL English as a Foreign Language
V Vowel
C Consonant
( )^{i} Word-initial
( )^{f} Word-final
RP Received Pronunciation

1 Introduction

Acquiring the correct pronunciation in a foreign language is a challenging task, especially if your target language operates on principles widely different from your mother tongue. Native Czech speakers will surely encounter such obstacles when learning English, especially as they advance from isolated words to phrases and longer units. Researchers have carried out experiments that hint at successful acquisition of these features, when they are instructed in class, as well as possible connections between the level of the learners' abilities and their skills to comprehend these characteristics. This thesis examines a similar connection - to production.

The section that follows this introduction reviews literature for the purpose of defining important concepts and acknowledging results of previous research in the field of speech rhythm, connected speech and its individual processes. In terms of speech rhythm, the thesis explains the original understanding of this term, the three-pillar model of speech rhythm formed by Pike and Prator (Prator, 1957), its since then proven inaccuracy and then the redesigned approach by Dickerson (2006), that likens speech rhythm to a two-peak mountain profile.

Having explained why teaching rhythm to English language students is necessary, the thesis continues with a detailed description of proceedings that are a direct result of natural speech rhythm – processes of connected speech. Following the classification of Alameen & Levis (2015), they are modification, linking, insertion, deletion, and reduction, the last of which is more commonly referred to as weak-form grammatical words and will be the focus of analysis here.

The conducted inspection is described in the section thereafter. Processes of reduction, elision and linking (or the lack thereof) in specific grammatical words were carefully evaluated in

recordings of 20 female native Czech speakers divided into two groups, one of which represents a distinctively Czech accent in English and the other a more ambiguous, yet still non-native accent. This evaluation also underwent a statistical analysis in order to determine, whether any differences or similarities between the two groups can be proven significant.

For the purpose of this thesis, we will consider RP as the reference accent and, to avoid confusion, the terms ESL and EFL as interchangeable.

2 Literature review

2.1 Rhythm

The notion of rhythm is exceedingly broad and applies to many areas outside of the scientific field as well. The general public comes to contact with the term mostly through music, dance, or poetry where a piece is standardly divided into bars of the same length and duration. From this perspective, the sense of "rhythm" is quite direct; it is an alternating pattern that repeats over time, however long either might be, and such "pattern can occur in sound, in movement, in flashes of light – the possibilities are nearly infinite" (Zimmer, 2019).

Humans come in touch with such regularity already in the womb, as they are closely intertwined with their mother's steady heartbeat, and certain reoccurring types of human behaviour can reveal how those nine months evolve our attraction to rhythmicity; we see regular deep breathing as key to temporary release of stress, and when walking together we tend to accustom to one another's pace without knowing it (ibid.). One could also mention the infants' inclination towards nursery rhymes or the way the chants of football fans, political protesters and other devoted groups sound when there is a need to connect sometimes thousands of people into one overwhelming voice (Volín, 2010). If humans tend to follow repeating regular patterns in sung or chanted speech, it is therefore rational to consider that rhythmicality could have some influence on natural speech unaltered by melodies or powerful slogans, too.

2.1.1 Initial approaches to speech rhythm

The concept of speech rhythm was introduced into linguistics in the 1950s by Kenneth Pike and Clifford Prator, Jr., and many English teachers around the world applied it to their methodologies almost immediately (Dickerson, 2016). Then, Pike and Prator, renowned EFL scholars, created a model that stood on three pillars (ibid.). The first pillar stated that the

prominence of syllables significantly changes over the course of a phrase. In more recent terminology, this is known as *stress alternation.* Prator (1957, p. 26) describes this behaviour of English as such: "[One might picture English] as a series of family groups, each composed of an adult accompanied by several small children of varying sizes. A few adults might be childless, and some would be larger than other". To this day, stress alternation remains a base for English rhythm; however, the second and third pillars do not stand so solidly anymore, as they have been overturned many times. The *timing* pillar suggested that "in sentence rhythm the stressed syllables tend to occur at relatively *regular intervals*", in other words, that the uniformity is sustained even though the number of syllables is different, as all stress groups tend to occupy an approximately similar time span (Prator, 1951, p. 25-26; cited in Dickerson, 2006). Roach (1998, p. 107) demonstrates this on the following model utterance:

1	2	3	4	5
ˈWalk	ˈdown	the	ˈpath	to the	ˈend	of the	ca	ˈnal

The five stresses in the sentence are divided by different amounts of unstressed syllables, from zero between syllables 1 and 2 all the way to three between syllables 4 and 5. Were this phrase aligned with the claims of Prator and Pike, the time between "walk", "down", "path", "end" and "nal" should be almost equal.

The last pillar was closely connected to the previous; Prator insists that students should be instructed to *accent every content word,* which the example above follows, as well (Prator, 1951; cited in Dickerson, 2016).

In 1967, Abercrombie constructed a general theory with the help of Pike and Prator's model, claiming natural speech rhythm in English is *stress-timed* (Abercrombie, 1967; cited in Nolan & Jeon, 2014). However, not all languages followed this rule. Some (for example French, Telugu, or Yoruba) seemed to produce all the syllables, regardless of their stress, regularly in

terms of their duration (Roach, 1998). Speech rhythm of such languages was therefore described as *syllable-timed*.

Later, Pike himself dismantled the "stress-every-content-word" theory (Dickerson, 2016) and ever since, more and more evidence strongly contradicts some hypotheses of Pike, Prator and Abercrombie that argue the measurable regularity of speech. In spite of its non-credibility, the model remained to be taught by practitioners worldwide (Cauldwell, 2002). Among the reasons for such unshaken stability was the fact that no new model had been found that would prove as easy to understand, while being closer to reality (ibid.).

2.1.2 Reinvented concepts of speech rhythm

In search for a more accurate grasp of regularity in speech, Nolan and Jeon (2014) chose to first distinguish between two types of approaches to the concept of rhythm in general. They name the term explored by Pike, Prator, Abercrombie and others *coordinative or periodic rhythm.* This type implies not only a pattern repetition but also a regularity of the recurrence intervals, such as the sound of clacking train-tracks under a vehicle travelling at a steady pace. The other approach, *contrastive rhythm*, pays attention to a consistent alternation of stronger and weaker elements, and allows this alternation to have any duration, as long as there are clear sequences of it. In other words, when strokes of a sawyer become irregular because of a tough wedge, or when a patient is suffering from cardiac arrhythmia, under the contrastive view, even these events are considered rhythmical. This surely gives rhythm more freedom than the coordinative approach and it correlates with Patel's (2008; cited in Nolan & Jeon, 2014, p. 2) statement that rhythm should be thought of as a "systematic timing, accentuation and grouping patterns" that might not have any real connection to exact time duration.

Considering such a technically looser definition, speech rhythm suddenly becomes a possibility, too, and its effect on utterance intelligibility is undeniable. Furthermore, this

notion is yet to be challenged. Buxton (1983; cited in Volín, 2010) conducted experiments with the conclusion that listeners' reaction times in tasks, where the temporal structure of the speech was distorted, were significantly longer than those same tasks performed on *natural speech rhythm*. Even though rhythm as a time precise entity was not measurable, Buxton's (ibid.) results proved that humans are very sensitive towards temporal patterning of speech and our perception ability relies on it; furthermore it explains why the first mechanical speech (production of isolated words and segments only) sounded so unnatural and unfavourable to us.

With a reinvented notion of rhythm, researchers set off to acquire a systematic understanding of its effects on speech. Dickerson (2016) claims to have found a structure, which he describes as a way to restore confidence of EFL teachers in English rhythm. In his opinion, it is key to accept that there is no regular pattern in accentuation and to find a suitable replacement of the 'stress-every-content-word' rule (ibid.). The answer to the latter was already revealed by Pike (1945; cited in Dickerson, 2016), although never implemented into his methodology; he observed that "the dominant rhythm patterns of spoken English have only one or two accents" in a tone-unit and those accents do not come at regular intervals (ibid., p. 44). Cauldwell (2002) similarly observed that the occurrence of single- and double-prominence tone-units radically exceeds that of triple-or-more-prominence units, and stated that one or two important stresses are "the minimum requirement for speech to be perceived as rhythmical" (Cauldwell, 2002, p. 11).

The one compulsory accent was named *nucleus*, and the other, which would come prior to the required nucleus was named *onset*. For teaching purposes, Dickerson (2016, p. 44) and his colleagues created a suitable metaphor of this process, one of a mountain range in silhouette.

Their *two-peak profile* serves as the new model of English rhythm and Dickerson (ibid.) further describes it as follows:

> We refer to the first peak as the anchor peak or just the anchor and to the second (or only) peak as the primary peak. The valleys—before, between, and after these peaks—consist of unstressed or weakly stressed syllables, including the suppressed stresses of content words.

This model finally offers the long-awaited alternative to Pike and Prator's three-pillar idea. Trying to accent every content word in a time regular manner sounds not only odd and non-native but it can leap all the way over to seeming pushy, rude, or aggressive (ibid.). However, most importantly it highlights other errors in speech and slows down the comprehension of the listener (ibid.). The difference can be seen on the following examples. The first instance creates a strong impression of insistence, while the second does not (Fries, 1943, p. 174; cited in Dickerson, 2016):

He ˈnever ˈhad a ˈchance to aˈpologize.
He ˈnever had a chance to aˈpologize.

Dickerson (2016) believes that adjusting to the "two-peak profile" model will eliminate these stigmatizing problems and benefit both the teachers and speakers of English worldwide.

Discussing rhythm is a delicate matter – how tightly or loosely one chooses to define the term alone can affect if spoken languages play by its rules or not (Nolan & Jeon, 2014). If one comes to terms with rhythm not having to be exactly regular, they will understand that *speech rhythm* in English simply relies on patterned alternation of more or less prominent units (Cauldwell, 2002; Nolan & Jeon, 2014; Dickerson, 2016).

2.1.3 Teaching rhythm to EFL students

As was already mentioned, the original stress-timed rhythm concept, even though overthrown, has not disappeared from language classes just yet; it still serves some purpose to English instructors, at least when there is a need for a practical exercise (Roach, 1998). One mentioned by Roberts (2013, p. 9) reveals "how words are 'squeezed' together to keep the

rhythm". This well-known activity involves maintaining a precise rhythmic count of 1, 2, 3, 4 and gradually adding little words between the numbers as one goes further along, for example like so (ibid.):

1	and	2	and	3	and	4
1	and then	2	and then	3	and then	4
1	and then a	2	and then a	3	and then a	4
1	and then there's a	2	and then there's a	3	and then there's a	4

It is imperative ESL learners understand that this exercise does not aim to promote English as a stress-timed language; it rather attempts to underline the contrast present between strong and weak elements (Roach, 1998). If students are to understand how English speech rhythm works, they must first realize that such alternation in prominence even exists, as many other languages operate on different means and their native speakers need to familiarize themselves with this process in English first (ibid.).

However, the contrast between elements does not solely rely on emphasizing those that should be strong, but on the ability to make the others weaker than default, too (Roach, 1998; Nolan & Jeon, 2014; Dickerson, 2016). In other words, if we intend to give prominence to certain syllables in order to achieve the regularity of English rhythm, it does not suffice to only strengthen them, as we must also minimize the elements around to further enhance this contrast. This need for additional weakening often "result[s] in modifications to pronunciation that are quite dramatic, including deletions, additions, or changes of sounds into other sounds, or combinations of all three in a given word in context" (Alameen & Levis, 2015, p. 159). These will be addressed in the following section.

2.2 Connected speech

In the past, many terms were used to describe differences to pronunciation of words, when included in natural running speech as opposed to when they are isolated. Brown & Kondo-Brown (2006a, p. 3) initially used the term *reduced forms* and defined it as a process during

which “phonemes of a language are changed, minimized, or eliminated in order to facilitate pronunciation”. As Underwood & Wallace (2012) recall, the phenomenon was also previously named *sandhi-variation* (Henrichsen, 1984), *reductions* (Brown & Hilferty, 1986; cited in Underwood & Wallace 2012), *reduced speech* and then again *adjustments of connected speech* (Celce-Murcia et al., 1996), or *connected speech processes* by Brown & Kondo-Brown (2006a). The last term, connected speech processes, will be used throughout, as Brown & Kondo-Brown (ibid.) believed it may be the most accurate and least misleading of all the choices. Disagreement in naming also causes further differences in views on the subdivision, most probably due to similarities in between the specific aspects. This shows that the classification can be viewed more as a matter of opinion; we therefore opted to follow the distribution of Alameen & Levis (2015) as it was found most comprehensive and well-supported.

2.2.1 Modification

In certain situations, a phoneme may be substituted for another according to what surrounds it not only across morpheme- but word-boundaries, as well (Alameen & Levis, 2015). The most prominent process in this category is *assimilation*. We mainly distinguish between three following types of this phenomenon.

The *anticipatory (regressive) assimilation* encompasses the cases where the C^f is affected by the C^i; in other words, where a subsequent consonant influences the previous (Roach, 1998, p. 111):

(1) sunbathe [sʌm̪beɪð]
(2) slight confusion [slaɪk̟ kənfjuːʒən]
(3) I have taken it [aɪ həf teɪkən ɪt]
(4) that song [ðæs sɒŋ].

Examples (1) and (2) additionally exhibit *assimilation of place*; /n/ and /t/ move closer to the places of articulation of /b/ and /k/: the lips and the velum, respectively. Case (3) shows

assimilation of voicing; the /v/ present at the end of the isolated form of "have" becomes the voiceless /f/ due to the successive /t/ in "to". *Assimilation of manner* which one might hear in case of (4) occurs mainly in very rapid utterances and overall, "the change in manner is most likely to be towards an 'easier' consonant - one which makes less obstruction to the airflow" (Roach, 1998, p. 111).

The *perseverative (progressive) assimilation* describes the process opposite to regressive assimilation. Although it commonly occurs across morphemes, it rarely happens between C^f and C^i of two neighbouring words and is sparsely noticeable; Cruttenden (2008, p. 298) states (6) /l/, (7) /r/, (8) /w/ and (9) /j/ are only slightly devoiced, when following a voiceless consonant. However, he also agrees that this phenomenon is more common within one word, rather than across its boundaries; and then it happens in "close-knit sequences" only (ibid.):

(5) frogs [frɒgz] jumps [dʒʌmps]
(6) at last [ət l̥ɑːst]
(7) at risk [ət r̥ɪsk]
(8) at once [ət ʍ̥ʌns]
(9) thank you [θæŋk j̊uː]

The last type, *coalescent* assimilation "occurs when two phonemes mutually influence each other" (Brown & Kondo-Brown, 2006a, p. 4). These very evident (and therefore very confusing to EFL speakers) changes generally happen when the palatal approximant /j/ follows alveolar stops and fricatives /t d s z/, resulting respectively in (10) [tʃ], (11) [dʒ], (12) [ʃ] and (13) [ʒ]:

(10) that you [ðætʃuː]
(11) did you [dɪdʒuː]
(12) kiss you [kɪʃuː]
(13) is yours [ɪʒɔːz].

Some choose to label this process as *palatalization*, meaning "the place of articulation of a speech sound is closer to the palate than otherwise expected, triggered by adjacent palatal segments" (Sung, 2018, p. 198).

Some researchers choose to classify individual cases of coalescent assimilation under either of the formerly mentioned assimilation processes; others, who agree that coalescent assimilation is "a bi-directional process" and therefore stands alone, may also refer to it as *reciprocal* (Kaźmierski et al., 2016, p. 236).

Apart from assimilation, Alameen & Levis (2015) mention other alternative modifications, one of which is palatalization as explained above. *Flapping*, also identified as t-voicing, or t-tapping, substitutes alveolar-stop clusters with an alveolar oral flap:

(14) get away [gerəweɪ]
(15) beat it [biːɾɪt].

This modification is generally used in American English (Holmes, 1995), it has however been increasingly detected in RP, too (Wells, 1982; cited in Holmes, 1995; Cruttenden, 2008; cited in Bjelaković, 2018).

Glottalization, t-glottaling, or glottal replacement "refers to the replacement of syllable-final /t/ with a glottal stop [ʔ]" (Bjelaković, 2018, p. 139). In RP, glottalization has already found its place in pre-consonant position, while its placing before an accented vowel is still somewhat stigmatizing, although also gradually becoming acceptable (Cruttenden, 2014; cited in ibid.):

(16) Is that you? [ɪz ðəʔjuː]
(17) Is that right? [ɪz ðəʔraɪʔ]
(18) not even [nɒʔˈiːvən]
(19) don't open [dəʊnʔˈəʊpən].

2.2.2 Linking

Brown & Kondo-Brown (2006b, p. 285) understand *linking* as a "[connection] between words across word boundaries". However, due to its vagueness, this definition comprises many processes, which may be, and often are, put in different categories. That would explain why Brown & Kondo-Brown (2006a) themselves do not include linking in their list of connected speech aspects. Views on where to make the cut differ even further. Alameen & Levis (2015,

p. 162) narrow the definition of linking to making "two words sound like one *without* changes in segmental identity". With this description, they do not consider any possible additions or deletions to the phrase and are therefore restricting the term to two simple occurrences. First, C^f followed by V^i will result in *resyllabification*:

(1) some of [sʌ‿məv]
(2) it is [ɪt‿ɪz].

Second, if two identical consonants neighbour over word boundaries, they will be linked into one and lengthened:

(3) nice smile [naɪsːmaɪl]
(4) fine night [faɪnːaɪt].

2.2.3 Insertion

However, some academics also see linking as any connection of two words, including occasions on which the linking is facilitated by adding sounds in between. Alameen & Levis (2015) separate these special circumstances into the category of *insertion*; in their summary of connected speech processes, Brown & Kondo-Brown (2006a) divide them between *intrusion*, *transition* and *liaison*, and Roach (1998) even considers them linking while entirely leaving out the options mentioned in 2.2.2. Two simple and clear-to-hear insertions are (1) *linking r* and (2) *intrusive r*. The former is a process that brings back word-final /r/ when present in the spelling of the word, as in:

(1) door [dɔː] → door opening [dɔːr‿əʊpnɪŋ],

and the latter appears between two random vowels, even "when there is no justification from the spelling" (ibid., p. 115):

(2) law and order → [lɔːr‿ən‿ɔːdə].

Volín (2006) and Cruttenden (2008) also define (3) *transient j* and (4) *transient w* as sounds appearing after word-final vowels /i:/ /ɪ/, or /u:/, /ʊ/ and their corresponding diphthongs, respectively:

(3) she is [ʃiː$_{(j)}$ɪz] be honest [biː$_{(j)}$ɒnɪst],
(4) you are [juː$_{(w)}$ɑː] blue eyes [bluː$_{(w)}$aɪz].

The j- and w-like sounds between two vowels are only glides from either a close front (ɪ) or a close back vowel (ʊ) to a vowel articulated in a different area and emerge only as "articulatory by-products"; hence it is transcribed only as an underscore, contrary to the intrusive r that actually appears as a phoneme (Volín, 2006, p. 66).

2.2.4 Deletion

Alameen & Levis (2015) use the term *deletion* to describe two processes during which sounds of isolated words disappear in company of other words, namely *elision* and *contraction*. Contraction is usually the first introduction to colloquial speech foreign learners of English have; Brown & Kondo-Brown (2006a, p. 4) describe it as "a way of showing the reduced characteristics of spoken language in written language" and examples are the utmost used "I've", "she's", "they'll" and many more. Elision most commonly affects /h/, as we find many pronouns, determiners and auxiliaries that lose the mentioned phoneme in a word-initial position:

(1) Did he leave his coat at home? [dɪd‿j liːv‿ɹz kəʊt æt həʊm]
(2) Can you come here? [kən jʊ kʌm‿ɹə]

Roach (1998) mentions another common elision that facilitates easier pronunciation of complex consonant clusters. It effects alveolar plosives (3) /t/ and (4) /d/, when placed between two other consonants, as it is easier to omit them as soon as speaking pace picks up (Cruttenden, 2008):

(3) last day [lɑːs deɪ] next chance [neks tʃɑːns]
(4) looked back [lʊk bæk].

2.2.5 Weak-form words (reduction)

Whether given more prominence or not, pronunciation of lexical words in connected speech does not drastically differ from the pronunciation in isolated form (Cruttenden, 2008). In contrast, "certain monosyllabic structural words in spoken texts […] are typically reduced or weak" (Volín & Johaníková, 2018, p. 181), even though they manage to maintain their original form when occasionally accented (Roach, 1998; Lecumberri & Maidment, 2000; Cruttenden, 2008). This creates two (or more) pronunciation options for the same word in different contexts; although Alameen & Levis (2015) categorise this phenomenon under *reduction*, this study will opt to use the widely favoured terms *weak forms* (Roach, 1998; Cruttenden, 2008). Weak-form words "exhibit the lowest degree of prominence in the metrical structure of an English utterance", their duration is rather short, and the nucleus of the single syllable usually contains a schwa or a close-mid vowel (Volín & Johaníková, 2018, p. 181).

The number of situations in which the strong form is used is, as has been already mentioned, quite restricted. Roach (1998, p. 89-90) names only four:

(i.) at the end of a sentence,

Chips are what I am fond **of**.
ˈtʃɪps ə ˈwɒt aɪm ˈfɒnd **ɒv**

(ii.) when contrasted with another word,

The letter's **from** him, not **to** him.
ðə ˈletəz ˈ**frɒm** ɪm nɒt ˈ**tu**ː ɪm,

(iii.) when emphasized,

You **must** give me more money.
ju ˈ**mʌst** ˈgɪv mi ˈmɔː ˈmʌni

(iv.) and when cited or quoted.

You shouldn't put "**and**" at the end of a sentence.
ju ˈʃʊdn̩t pʊt ˈ**ænd** ət ði ˈend əv ə ˈsentəns

Having underlined the weak-forms and boldfaced the strong-forms, these examples further show how the former seems to be more frequent. The last example also demonstrates why Brown & Kondo-Brown (2006b) sometimes name the strong, isolated, forms as *citation forms.*

The groups often reduced and most affected by processes of connected speech are generally auxiliary verbs, prepositions, conjunctions, and pronouns; or under their collective term - *grammatical words* (Roach, 1998; Volín & Johaníková, 2018). Grammarians explain these words are "empty", claiming they do not necessarily bear meaning but rather enable its encoding (Ivanov, 2015). This fact leads into an immensely frequent use of such words, (surely more numerous than that of any lexical word), and an even more immense need to be able to comprehend and produce them as a learner of English (ibid.). It must be however kept in mind that *weak-form words* are a much smaller set chosen out of an overwhelming quantity of grammatical words, as the process does not apply to all of them (Volín & Johaníková, 2018). Consequently, no consensus has been made on the actual count of all the weak-form words, as scholars tend to vary in their opinions; however, the core set is prevalently consistent (ibid.).

Many grammatical words do not have just one, but multiple gradated weak forms. This varies due to the cluster in which they are situated, or the rapidity of speech. Such process of gradation is exhibited best on the conjunction "and"; its strong form /ænd/ is commonly reduced to any of these weak forms: /ənd n̩d æn ən n̩/.

The following subsets of articles (1), conjunctions (2) and prepositions (3) with a weak form are almost always listed as follows (Roach, 1998, p. 90-93; Cruttenden, 2008, p. 266-268; Volín & Johaníková, 2018, p. 182):

(1)	the	/ði:/	→ [ði] + V, [ðə] + C
	a	/eɪ/	→ [ə]
	an	/æn/	→ [ən n n̩]
	and	/ænd/	→ [ənd n̩d ən n̩ n]
	but	/bʌt/	→ [bət]
	that	/ðæt/	→ [ðət]
	than	/ðæn/	→ [ðən ðn̩]
	as	/æz/	→ [əz əs]
(2)	at	/æt/	→ [ət]
	for	/fɔ:/	→ [fər fr] + V, [fə] + C
	from	/frɒm/	→ [frəm fəm frm̩]

of /ɒv/ → [əv ə v]
to /tu:/ → [tu] + V, [tə] + C

Almost all personal and possessive pronouns and the interrogative pronoun “who” may be found in their reduced forms, too. Cruttenden (2008) does not include the indefinite existential quantifier “some”, because he claims “some” only takes on the weak form as an adjective (Cruttenden, 2008). However, in this case, Dušková (2009) classifies the word solely under pronouns and states its weak form is used when meaning a small number or a small quantity, therefore it included here, also:

(3) he /hi:/ → [hɪ i: hi ɪ i]
her /hɜ:/ → [hər ɜ:r ər] + V, [hə ɜ: ə] + C
him /hɪm/ → [ɪm]
his /hɪz/ → [ɪz]
me /mi:/ → [mɪ mi]
she /ʃi:/ → [ʃɪ ʃi]
some /sʌm/ → [səm sm̩]
them /ðem/ → [ðəm ðm m̩ m]
us /ʌs/ → [əs s]
we /wi:/ → [wɪ wi]
who /hu:/ → [u: hʊ hu]
you /ju:/ → [jʊ ju jə]

The largest difference in opinions comes with the category of auxiliary and modal verbs, as the list of all variants made by many different grammatical categories is numerous and pronunciation varies greatly. Therefore, their weak forms vary as well. Cruttenden (2008: 266-268) and Roach (1998, p. 94-95) mention these forms:

(4) am /æm/ → [əm]
are /ɑ:/ → [ər r] + V, [ə] + C
be /bi: → [bɪ bi]
been /bi:n/ → [bɪn]
can /kæn/ → [kən kn̩]
could /kʊd/ → [kəd kd]
do /du:/ → V + [d] + C, [də] + C, [dʊ du] + V
does /dʌz/ → [dəz z s]
had /hæd/ → [həd əd d]
has /hæz/ → [həz əz z s]
have /hæv/ → [həv əv v]
must /mʌst/ → [məst] + V, [məs] + C
shall /ʃæl/ → [ʃəl ʃl̩]
should /ʃʊd/ → [ʃəd], V + [ʃd]
was /wɒz/ → [wəz]

were /wɜː/ → [wər] + V, [wə] + C,
will /wɪll → [wəl l̩ l]
would /wʊd/ → C + [wəd, əd], V + [d]

2.2.6 Summary

All the mentioned connected speech processes (modifications, linking, insertions, deletions and weak-form words or reductions), often employed simultaneously, facilitate the further minimization of weak tone-unit elements, through which the emphasis on the accented, strong elements is achieved. Therewith, it contributes to the necessary maintaining of natural English rhythm (Euler, 2014).

2.3 The importance of connected speech instruction

Connected speech and its processes are not to be thought of as signs of sloppy expression, because it is common and completely acceptable even in formal situations (Henrichsen, 1984; cited in Underwood & Wallace, 2012). It makes pronunciation physiologically easier and allows faster production in general; however, in Ito's (2006) study, non-native speakers were significantly more successful in understanding speech absent of reduced forms than one with them present. Connected speech processes result in reduction of distinctive features, which often creates an obstacle in listening comprehension for EFL students (Underwood & Wallace, 2012; Alameen & Levis, 2015). Learners acquire pronunciation from language classes that understandably adapt the speaking style to facilitate learners on lower levels but unfortunately, native speakers do not follow these careful steps in real life (ibid.). Practitioners must first allow the students to understand the proceedings of connected speech and then follow with exercises improving listening comprehension as well as production ability (Euler, 2014).

Some studies were conducted in order to find whether such instruction can have a positive effect and realistically improve such skills (Underwood & Wallace, 2012; Alameen & Levis, 2015). The positive influence of teaching on listening proficiency has been confirmed many

times before (Brown & Hilferty, 2006; Underwood & Wallace, 2012); a study by Romanko (2008; cited in Underwood & Wallace, 2012) has even showed that Japanese English-course participants were able to hold most of their gained knowledge even two months after the course's end without any instructed practice in the meantime.

Much less research has been conducted in the area of influence on speaking fluency (Underwood & Wallace, 2012). However, even in such a minor amount, it shows positive results. Brown & Hilferty (1986; cited in Underwood & Wallace, 2012) believe that teaching connected speech can even perfect overall accuracy and fluency and their statement was followed by Underwood & Wallace (2012, p. 138), that think "the lack of research in the area of [connected speech] instruction on speaking fluency is perhaps also reflected in the general absence of [connected speech] instruction in the classroom", which widens the issue even further. Isaacs (2009) explains training connected speech requires repetition in order to automatize its processes; however, the practice of repeating is "widely viewed as being incompatible with communicative principles", in other words, non-authentic and therefore unsuitable for a language class (ibid., p.1).

2.3.1 Problems for Czech speakers of English

Weakening of elements and other processes of English connected speech are not a simple component of pronunciation to comprehend for any non-native speaker (Euler, 2014). However, for speakers of differently timed languages, it presents an even more excruciating task (Volín & Johaníková, 2018). They might pronounce monosyllabic grammatical words with persisting prominence and therefore create unwanted attention, as perceptually the words seem overly strong (ibid.). Due to their "high frequency in spoken text, the effect of their unconventional pronunciation can [then] be quite profound" (ibid., p. 182).

Czech rhythm is facilitated by speech-units that prevalently consist of a single word (Volín, 2009). It is the first syllable of a word that regularly bears the stress in Czehc, but it is not articulated with such contrastive prominence as suitable for a primary accent in English; it only serves a "delimitative function" (Skarnitzl & Rumlová, 2019, p. 113). The connected speech processes of Czech are therefore quite different. Linking words together professes itself dominantly through assimilation (Volín, 2009). We may find some elision, even though mainly in consonants clusters and in word-final positions – any level of reduction of vowels is rare, as it negatively deforms the sound pattern (ibid.). Hence, it is relevant to presume that Czech speakers might potentially exhibit problems in pronouncing weak forms of words, too (Volín & Johaníková, 2018).

Volín et al. (2013; cited in Skarnitzl & Rumlová, 2019, p. 113) conducted an experiment proving the "Czech-accented schwas were still too prominent" in comparison to native English pronunciation, which evidently concerns a strong portion of weak-form grammatical words. Later, Volín & Johaníková (2018) also proved that the pronunciation of weak forms by Czech speakers is significantly longer than by native speakers of English. It is safe to say that weak-form words tend to cause problems to Czech speakers of English. As Underwood & Wallace (2012) stated, on average there is not enough time spent on teaching connected speech in an English classroom, and Czech learners especially would benefit from such instruction greatly.

2.4 Hypothesis

Research suggests that the role of connected speech in comprehension is undeniable (Buxton, 1983; cited in Volín, 2010). It proved that acquiring and understanding this phenomenon is an unnatural and challenging process (Henrichsen, 1984; Euler, 2014; Alameen & Levis, 2015; Volín & Johaníková, 2018) but both perception and production showed improvement with practice (Brown & Hilferty, 2006; Romanko, 2008 - cited in Underwood & Wallace, 2012;

Underwood & Wallace, 2012). Henrichsen (1984, p. 117) conducted a study with a slightly different focus; it set out to uncover, whether "[the effect of connected speech processes] on the comprehensibility of input varies according to the listener's proficiency in the language", and this assumption also proved to be true. This thesis aims to investigate a similar theory in connection to Czech speakers and their pronunciation of weak-form grammatical words and therefore presents the following hypothesis:

> H: Native Czech speakers with an ambiguous English accent reduce grammatical words to their weak forms more than native Czech speakers with a distinctively Czech foreign accent.

This suggestion will serve a more explorative purpose. The following part of this thesis will analyse different phenomena such as reduction, linking and deletion in order to find out whether the results of previous studies are appliable to pronunciation habits of Czech speakers of English and if so, in which particular processes.

3 Material and method

3.1 Recording and classification of the participants

This study is based on speech material taken from the Prague Phonetic Corpus, which is being continuously developed at the Institute of Phonetics in Prague. The participants, all of which are native Czech speakers, were asked to read BBC news bulletins comprising about 500 words in total and organised in 7 paragraphs, or divided news items, on average. The speakers had been introduced to the text before the recording began and had been given enough time to get acquainted with it sufficiently. All the material in question was recorded in the sound-treated recording studio of the Institute of Phonetics in Prague at a sampling rate of 32 kHz and with 16-bit quantization, using the high-quality AKG C4500 B-BC condenser microphone.

Upon entering the corpus, the speakers were intuitively classified into either of three groups based on their foreign accent (Skarnitzl et al., 2005, p. 13):

A: speakers with “native-like or near native-like accent”,
C: speakers with “an evident Czech accent” and
B: speakers with an “ambiguous accent” unfit for either of the other two groups.

This distinction and accuracy of such classification was found credible in a study by Skarnitzl et al. (ibid.) as it showed that native speakers of English as well as proficient Czech speakers of English tend to assign the degree of a foreign accent highly uniformly. For the purpose of this thesis, 20 female speakers were chosen out of the said depositary at random, 10 of them belonging to group B and the other 10 to group C.

3.2 Processing and analysis of the data

To explore the phenomena in question, the Praat software (Boersma & Weenink, 2019) was employed. In order to do so, the raw recordings had to undergo some initial processing. That was already done on eleven of the randomly chosen files and had to be carried out on the remaining nine. To replicate the procedure that was followed when handling the eleven ready

recordings of the corpora, the raw material was separated into breath groups in Audacity® (Audacity Team, 2018) according to the speakers' individual patterns and each unit was assigned a TextGrid file with the corresponding transcript. Then, the Penn Phonetics Lab Forced Aligner (Yuan & Liberman, 2008) was used to automatically detect boundaries between specific phones. Minor and major discrepancies in the boundary locations were then corrected manually in Praat, whilst making use of the segmentation guidelines presented in Machač & Skarnitzl (2009) in order to provide certain consistency.

Consequently, weak forms of grammatical words from chapter 2.2.5 were to be identified. As the word frequency was unknown, the narrower selection of words for analysis was done contextually. Those grammatical words which do not typically occur in read news were disregarded; this includes many personal pronouns and words with contracted versions. Some words were also excluded based on possible difficulties with analysis (such as the problematic boundary between /w/ and /ʊ/ in "would").

Those that were deemed appropriate for this study were then assessed using careful auditory analysis and accordingly labelled to their imminent pronunciation. The used coding is presented in Tables 1 and 2 on the following page. All words were marked with either a single- (one number) or a three-character tag (two numbers divided by a comma) according to the qualities we wanted to analyse later.

The single-character labels allocated a number from 1-3 to the words, mostly on the basis of the realized vowel, 1 being /ə/ and therefore corresponding to the weak-form pronunciation and 2, or possibly even 3, corresponding to the strong-form pronunciation or a full Czech pronunciation (as in the case of [e] in [end] for "and"). The exception to this rule in the single-character codes would shed light on the absence (1) or presence (2) of [h] in "he", "her", "him" and "his".

The three-character labels followed the same directives for the first number in the code and labelled the realization of a consonant in the second number. 0 was given when the consonant was elided, 1 when it was audible. Exceptions were the words “as” and “that”, where this second number described different realizations.

To provide some examples, if “for” was pronounced [fər], the word was labelled with 1,1 (the former 1 for [ə] and the latter for the present [r]); if “should” was pronounced [ʃʊd], it was coded as 2 for the vowel was unreduced.

word	1	2	3
to	ə	ʊ	u:
of	ə	ɒ	
some	ə	ʌ	
can	ə	æ	
could	ə	ʊ	
he, her, him, his	-	h	
should	ə	ʊ	
was	ə	ɒ	

Table 1. 1-character coding guidelines for labelling the pronunciation of weak-form grammatical words

word	1st symbol			,	2nd symbol		
	1	2	3	,	0	1	2
that	ə	e	æ	,	t	ɾ	ʔ
and	ə	e	æ	,	-	d	
as	ə	e	æ	,	s	z	
for	ə	ɒ	ɔ:	,	-	r	
were	ə	e	e:	,	-	r	
had, has, have	ə	e	æ	,	-	h	
from	ə	ɒ		,	-	r	

Table 2. 3-character coding guidelines for labelling the pronunciation of weak-form grammatical words

The information was extracted from the TextGrid file via a script – it acquired the name of the speaker, the target word and its coding. As reduction of vowels and consonants is not the only important feature of maintaining natural speech rhythm, the script also obtained additional data that would shed light on linking to the surrounding words.

This procedure was only applied to words “and”, “as” and “of”. These were the only words out of the chosen set with a V^i; linking to words after the target one can also be expected to occur most often here.

3.3 Statistical analysis

The data was then organized in Microsoft Excel and minor discrepancies such as coding and orthographical errors were edited out; then, the vowel and consonant realizations were reproduced from the coding as required. In relevant contexts, initial a final linking was determined. What was extracted for this latter purpose is visualised in Figure 1. We looked for the first phone in the target word and the one that followed – if there was a glottal stop, we would mark the word as “unlinked”, and if the word begun with the specific vowel, we would marked it the opposite.

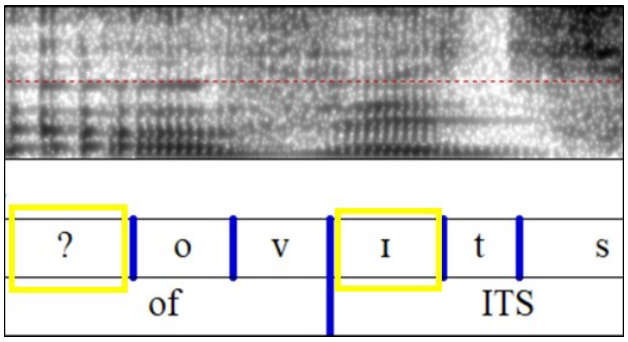

Figure 1. Phones acquired by script in order to determine linking

This thesis examines the frequency of use of weak-form grammatical words and aims to compare the rate of such occurrences of two differently skilled speaker groups. Thus, it was deemed appropriate to apply the Pearson's Chi-squared (further as χ^2) test for statistical independence. As Volín (2007) suggests, this test can prove efficient when comparing occurrence rates in subgroups. For this test, we must employ a null hypothesis as follows:

> H_0: There is no statistical dependency between group affiliation and the production of differently reduced forms of grammatical words.

If the χ^2 probability is calculated to $p < 0.05$, we can defend rejecting this hypothesis and therefore claim that there is indeed a connection between accent level and weak-form

production (Volín, 2007; NIST/SEMATECH e-Handbook Statistical Methods, 2012). If the probability is $p < 0.001$, the result might be considered highly significant and the connection between level of speaking and use of reduced forms as utmost dependent (ibid.).

This statistical test was performed in RStudio (2015) that simultaneously employs the Yates' continuity correction. Engaging this additional control is a recommended practice when processing data with such properties as ours (Volín, 2007). This software, specifically its *ggplot2* package (Wickham, 2009) was also used to create the figures for section 4 of results and their discussion.

4 Results and discussion

Because we decided to obtain such a diverse and arguably manifold set of variables, a more regulated organisation of the results portion was deemed important. First, we must establish the results that will not be included in this thesis due to little representation, and afterwards the sufficient data will be presented and simultaneously commented on. They will be sorted by the different processes of connected speech they employ: reduction of vowel, elision (or change of realization) of consonant, and linking. The findings will be further grouped according to the standard phoneme realization in the strong form of the word or other common properties.

4.1 Exclusion of insufficient data

We used a range of different texts that were read, which resulted into varying quantities of target words by each speaker. To determine whether any grammatical words should be ruled out on the basis of their scarce occurrence, Table 3 was created. This chart shows the occurrence rates of grammatical words by speakers and their groups, and total sums by words.

group	speaker	and	as	can	could	for	from	had, has, have	he, his him, her	of	should	some	that	to	was	were
B	BURA	6	2	0	0	4	5	9	10	16	1	1	0	19	3	1
	CETA	4	1	2	0	3	2	9	3	18	0	0	7	13	3	2
	CRBA	4	1	2	0	3	2	9	3	18	0	1	7	15	3	2
	GIVA	3	1	2	0	3	2	9	1	17	0	0	6	14	2	2
	HDLA	7	2	0	0	5	5	9	9	15	1	1	0	18	3	1
	KOPA	4	1	2	0	3	2	9	3	18	0	0	6	15	3	2
	KRSA	3	1	2	0	3	2	9	3	18	0	1	7	15	3	2
	LUOA	4	3	1	1	1	3	14	6	19	0	1	4	9	3	6
	PETA	8	2	0	1	3	6	15	5	16	1	1	4	16	4	1
	SODA	5	1	2	0	3	2	9	3	16	0	1	6	15	3	2
C	BMA	8	3	0	0	2	4	6	5	19	0	1	3	13	3	2
	JABA	8	2	0	2	4	5	14	11	18	1	1	4	16	4	1
	KLIA	7	4	1	0	2	5	8	2	9	1	0	4	11	2	1
	MPA	14	1	0	0	4	8	7	7	13	2	1	2	12	0	2
	MUPA	6	2	0	0	1	6	10	1	12	0	1	4	18	1	0
	PAUA	6	2	0	0	2	6	10	1	14	0	1	4	18	1	1
	PLDA	4	3	1	1	1	3	14	6	18	0	1	4	9	3	5
	SMRA	4	3	1	1	1	4	14	6	17	0	1	4	9	3	6
	SSA	10	1	0	0	3	7	7	1	10	2	1	1	12	0	0
	VLHA	7	2	0	0	3	4	7	3	20	0	1	2	5	6	4
	Total	122	38	16	6	54	83	198	89	321	9	16	79	272	53	43

Table 3. Grammatical words frequency and distribution by speakers and their group

Words “can”, “could”, “should” and “some” (n_{can} = 16, n_{could} = 6, n_{should} = 9, n_{some} = 16) were eliminated completely, for such numbers cannot lead into any significant statistical deductions, considering there were 20 speakers in total. When applying χ^2 to “as”, “for”, and “were”, and the combined group of “he”, “his”, “him” and “her”, the programme computed the values, although it suggested higher caution when formulating any conclusions. These words will be therefore dealt in context with other similar realizations or only in relation to this particular subset of speakers. We can apply the same occurrence rates and rules of use to dealing with initial linking of “and”, “as” and “of; due to the nature of this connected speech process and how we already approached it beforehand as explained in section 3.2, the frequency of initial linking is equal to the overall rates (n_{and} = 122, n_{as} = 38, n_{of} = 321).

It is important, however, to find out the frequency of explorable contexts of linking to the words that follow them. This analysis would only apply to those subsequent words with a V^i, as the nature of linking requires. The individual rates can be seen in Table 4.

group	speaker	and	as	of	group	speaker	and	as	of
B	BURA	0	0	6	C	BMA	3	2	4
	CETA	1	0	3		JABA	2	0	2
	CRBA	1	0	2		KLIA	1	0	1
	GIVA	1	0	2		MPA	4	1	2
	HDLA	0	0	5		MUPA	1	0	0
	KOPA	1	0	1		PAUA	0	0	2
	KRSA	1	0	2		PLDA	0	0	1
	LUOA	0	0	1		SMRA	0	0	0
	PETA	2	0	3		SSA	3	1	3
	SODA	1	0	2		VLHA	0	0	1

Total	and	as	of
	22	4	43

Table 4. Frequency of linking to subsequent words by speakers and their groups

Total frequency of linking after “as” (n_{as} = 4) and “and” (n_{and} = 22) is clearly inadequate and must be ruled out. Upon closer examination, the division of cases of linking after “of” (n_{of}=43) between speakers varies greatly, from 0 to 6, and it was decided that it would not be considered, either. Final linking of grammatical words will not therefore be explored at all.

4. 2 Reduction of vowel

In this part of the study, we were exploring the tendencies of reducing vowels to [ə] in order to create the desired weak form of the grammatical word. Out of all three sections, these results will likely be most extensive and applicable, because reducing the vowel is core to the practice of creating a weak form of a grammatical word. We also assume lesser influence of nuisance variables, at least in comparison with the explored consonants, as will be explained later in the adequate subchapter. In accordance with the hypothesis, it was presumed that speakers of group B would reduce more often than speakers of group C; in other words, we may expect higher occurrence rates of [ə] in group B than in group C. Overall, the speakers used the Czech "full" vowels instead of the English ones when applying the strong form pronunciation: namely [o] instead of [ɒ] in section 4.2.1, [e] instead of [æ] in section 4.2.2, and [e:] instead of [ɜ:] in section 4.2.3. As this thesis explores reductions instead of general segmental pronunciation tendencies, we will accept these vowel changes as standard to this text and will not comment on them any further unless necessary.

4.2.1 [o] in "from", "of" and "was"

The behaviour of words with the vowel [o] in the strong form was examined in "from", "of" and "was". The quantities and distribution of the different realizations can be seen in Figure 2.

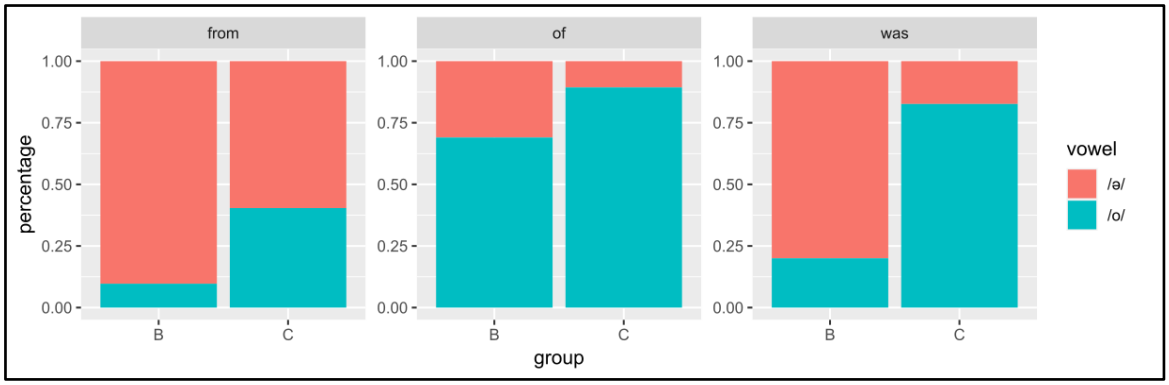

Figure 2. [o] to [ə] ratio in "from", "of" and "was"

In all three words, group B indeed shows a stronger inclination to reduction than group C. This result was further confirmed as highly significant in "of" [χ^2 (1; n = 321) = 18.38; p < 0.001)] and "was" [χ^2 (1; n = 53) = 18.04; p < 0.001)], and significant in "from" [χ^2 (1; n = 83) = 7.48; p < 0.05)]. However, the ratios between realizations are different in all three graphs and appear to be word specific.

In the case of "was", the difference between groups appears to be largest; furthermore, all the realizations of [ə] in group C were performed by two speakers only, while in group B, the use of [ə] was distributed throughout, which only underlines the group distinction. Although overall reduction of [o] to [ə] in "of" is not generally as successful by either of the groups as for "was", it is more or less evenly distributed in both.

The word "from" shows significant dependency between group and ability to reduce, although upon closer inspection in Figure 3, which shows the individual speaker realizations of "from", this variation might be mostly due to speakers JABA and KLIA, who only used [o] in all cases.

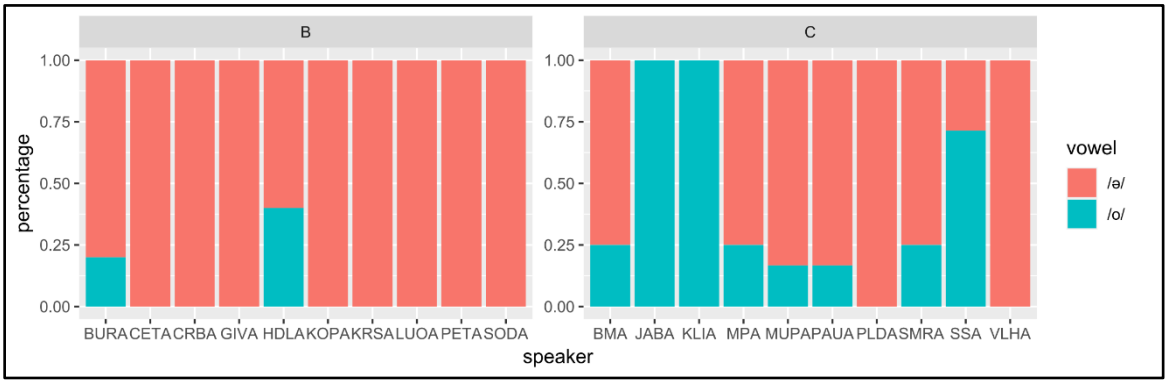

Figure 3. Realizations of vowel in "from" by speakers

In fact, if these speakers were excluded from the statistical test, then χ^2 (1; n = 73) = 2.16; p > 0.05; and the groups would therefore show statistically similar behaviour. In any case, apart

from JABA and KLIA, all speakers seemed to be rather capable of reducing [o] to [ə] in "from".

4.2.2 [e] in "and", "as", "had, has, have" and "that"

We similarly compared the tendencies in reduction of [e] in "and", "as", "had, has, have" and "that". Pronunciation of [e] greatly dominated over the reduced [ə] in all groups and words. χ^2 tests for all words separately resulted in $p > 0.05$, indicating there are no significant differences between group behaviour. Words "and", "as" and variations of "have" show use of [ə] in single instances and by very few speakers throughout both groups. Overall, the most realizations of [ə], and therefore highest percentage of reduction, appeared in the pronunciation of "that". However, as Figure 4 shows, the use was sporadic and dependent on speakers, and as mentioned the statistical test did not confirm any differences between the groups, nevertheless.

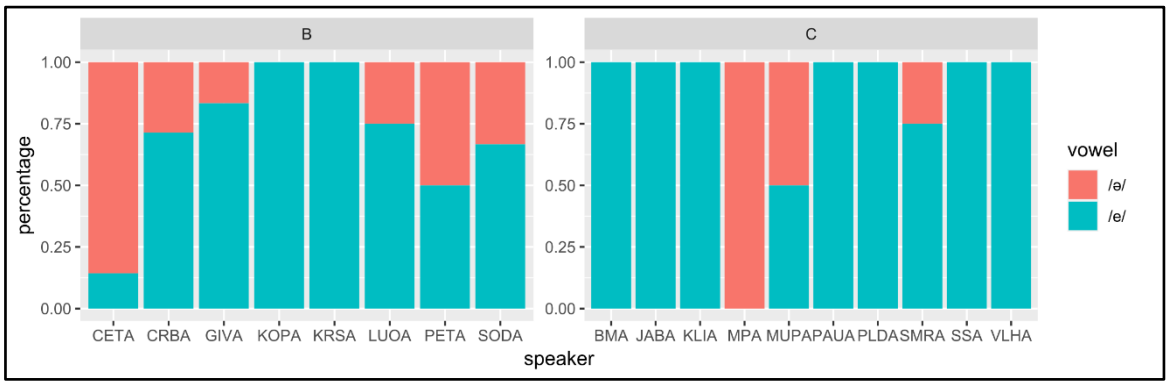

Figure 4. Ratio of [e] and [ə] in "that" by speakers

4.2.3 Long vowels [oː], [u:], and [e:], in "for", "to", and "were"

Firstly, it is important to establish that distinguishing between long and short vowels can be ambiguous and will likely be labelled differently by multiple listeners; this labelling was however done by a single listener and is therefore expected to be at least internally consistent. These three vowels and words were grouped together because the different realizations that the participants used showed two similarities.

As section 2.2.5 about weak forms indicated, some grammatical words may have more than one reduced form – in case of “to” (/tu:/), it can also be [tu] apart from the expected [tə]. The speakers of this study applied this rule to [oː] in “for”, too; and used [o] ([fo(r)]), which is not usual in RP. Similarly, they applied this habit to their pronunciation of “were”. Although the standard strong-form pronunciation is /wɜ:/ and the word is only reduced to [wə(r)], the participants used the non-native strong form [we:(r)], and another reduction – [we(r)] – as well. So, in all three words, Czech speakers used three gradated realizations: the long vowel [o: u: e:], the short vowel [o u e], and [ə], respectively.

The second similarity is closely related to the first or is rather based upon it. The use of the long vowel was the scarcest overall as well as in the individual words. Figure 5 shows this to be true for [o:], [u:] and [e:] in all three words and all groups and it speaks to the general tendency of speakers to adopt at least some slight reduction in these cases – even though it might not be according to standards of RP.

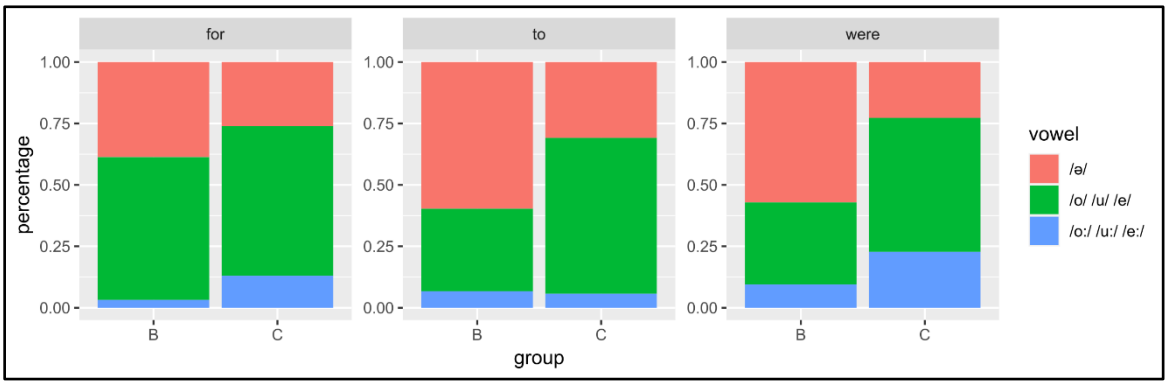

Figure 5. Ratios of vowel use by groups in "for", "to" and "were"

Due to the challenges mentioned in section 4.1, and no possible closed set related observations, “were” will not be dealt with any further. There are however some additional remarks to be made about “for” and “to”. Figure 6 shows that the distribution of different realizations of “to” is somewhat stable within the groups and does not show any grossly group defying-behaviour by any speaker; here, absolute values are shown rather than ratios, as they

nicely represent this reality. The statistical test also revealed [χ^2 (2; n = 272) = 24.88; p < 0.001] a highly significant dependence between skill and groups, again presenting group B as more apt to produce weak forms.

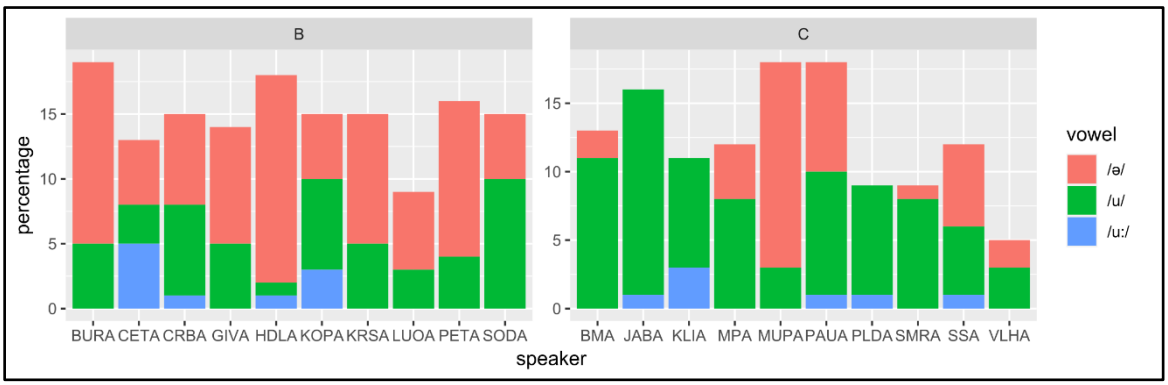

Figure 6. Frequency of vowel use in "to" by speakers

Although we were advised to make conclusions with "for" with vigilance, there was some interesting performance that may at least be mentioned. Figure 5 hints at no potential difference in use between our groups B a C and statistically this was confirmed [χ^2 (2; n = 54) = 2.37; p > 0.05]. While each B speaker generally used both strong and weak forms, only two speakers from group C stand behind all realizations with [ə]. Both MPA and SSA of group C used it on 3 three occasions, meaning in 75% of all cases for the former and 100% of all cases for the latter speaker. Had we excluded these two participants, [χ^2 (2; n = 47) = 10.04; p < 0.05] group B would have been confirmed to be more successful, as it was with "to".

4.3 Elision, or realization of consonant

Consonants offer more types of different occurrences to be explored and their categorisation is therefore not as simple as that of vowels in section 4.2. Due to their nature, consonant reductions and variants also need to be contextualized in regard to their imminent environment. Considering these factors, forming any conclusions about disparities between groups might become challenging and requires much caution. Compared to the results of vowels, consonants are not expected to provide as substantial insight.

4.3.1 Final [r] in “for” and “were”

Inspection into word-final [r] in “for” and “were” shows little noteworthy results. Czechs often employ rhotic rather than non-rhotic pronunciation and same was the case here ([r] was present in 11 % of all cases). Furthermore, there is no special relation of rhoticity to group, as χ^2 also confirms ($p > 0.05$ for both words separately). These calculations require to be put into context, as the use could reflect “linking r” mentioned in 2.2.3; that is, if a word with V^i came after our target words, the presence of [r] would be justifiable and rational. There were not many occasions on which a vowel followed, 9 in “for” (out of 54 in total) and 4 in “were” (out of 43 in total), and in these instances [r] was present. However, the words were then still linked in only 46 % of occurrences. So, the use of [r] did not show any tendency and was wholly unpredictable.

4.3.2 Initial [h] in “has, had, have” and “he, her, him his”

Results show that elision of [h] appeared on precisely one single occasion out of all 287 possible tokens with word-initial [h]. It is safe to say that our participants disregard this connected speech process completely, regardless of group.

4.3.3 Final [d] in “and”

In comparison, word-final [d] in “and” shows significant findings. Figure 7 reveals group B elided this consonant more often than group C. This assumption was found highly significant by χ^2 (1; $n = 122$) = 11,44; $p < 0.001$, as well. Of 122 instances in total, only 5 are followed by a vowel; this gives the interpretation even more certainty, as almost all words were produced under the same conditions. The incidence of elision was also high; the average ratio for all speakers together was over 75%.

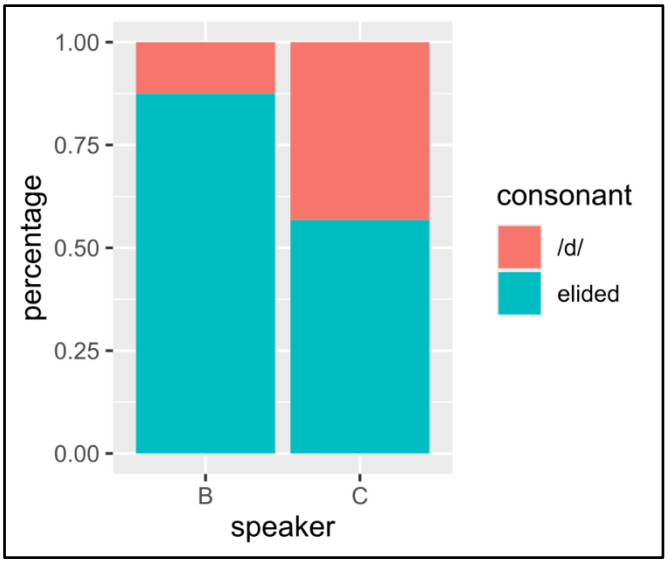

Figure 7. Ratio of consonant realization in "and" by groups

One possible explanation for this generally higher ratio in both groups could be that EFL learners are exposed to colloquial expressions with the grapheme “d” elided, such as is “mac n' cheese”, or “Rock'n'Roll”, which acquaints them with this specific realization. Moreover, as section 2.2.4 points to, the articulatory simplification in clusters, that this combination of consonants creates, is indisputable.

4.3.4 [r] in “from”

The [r] in “from” manifests no differences between groups, either. In most cases, [r] prevails, elision appears seldom and is randomly distributed by single cases in between speakers of both groups. One exception was speaker VLHA belonging to the C group who elided the consonant three out of four times.

4.3.5 Final consonant in “as” and “that”

Rather than elision, we looked for different realizations of the final consonant in “as” and “that”. χ^2 does not suggest that groups behave differently in either of the words ($p > 0.05$ for both “as” and “that”).

With “as”, we have to examine the circumstances thoroughly. We can view reducing [z] to its voiceless counterpart [s] as reduction, in line with final devoicing in Czech. However, one must consider that these consonants are prone to voicing assimilation and their pronunciation might be influenced by what follows. As mentioned, results show no difference of use between groups; in both, the use of [s] statistically dominates over the use of [z] in the same ratio. Looking into the distribution of the subsequent phonemes does not offer any possibility that this distribution would be somehow deliberate and controlled. When a voiced consonant followed, there are almost as many realizations of [s] as of [z] in both groups, while [s] prevailed almost completely, when a voiceless consonant ensued. The following examples illustrate these three different realizations in respective order. All speakers belong to group B:

BURA:	as one	[es wʌn]
HDLA:	as men	[ez men]
PETA:	as part	[es pɑ:rt]

All speakers seem to prefer using [t] in “that” rather than any other realization (zero realization, alveolar flap or a glottal stop). As group B shows, this might be more dependent on personal choice or style of the speakers, as some employ other variants sporadically, such as:

KOPA	that was	[d̪eʔwos]
GIVA	that was	[d̪ɾwos]
KRSA	that was	[d̪ewos]

Group C appears to prefer the original sound. These tendencies are presented in Figure 8.

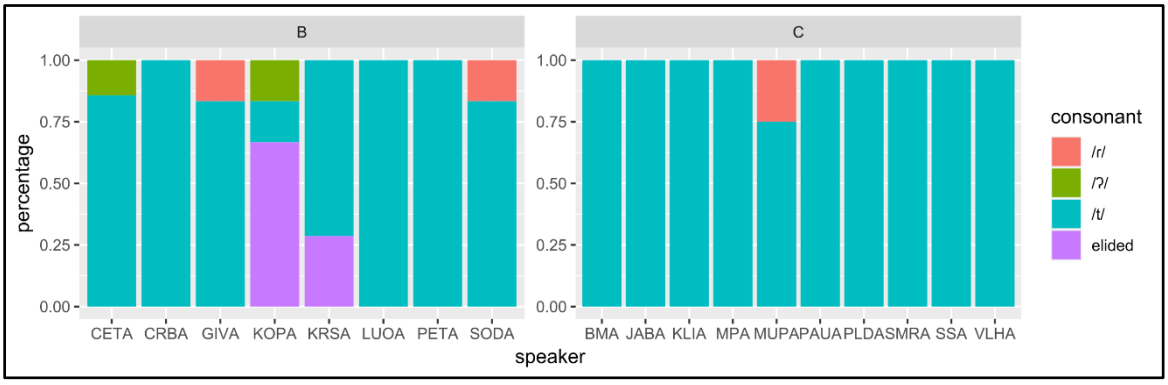

Figure 8. Ratio of different realizations of final consonant in "that" by speakers

4.4 Initial linking of “and”, “as” and “of”

As linking to the subsequent word was ruled out in section 4.1 as insufficiently represented, the last results to be examined deal with initial linking of those words that begin with a vowel – “and”, “as” and “of”. This process seems to be altogether unpopular with all our speakers.

In “and” and “as”, there is hardly any linking and therefore hardly any difference between our groups. In “of” B speakers linked in 12,3 % of all cases, while C speakers in 4,6 % only, which might be considered as a significant difference. All three words are represented in Figure 9. Statistical tests were calculated as follows:

and	$\chi 2$ (1; n = 122) =1.08	$p > 0.05$
as	$\chi 2$ (1; n = 38) = 1.68	$p > 0.05$
of	$\chi 2$ (1; n = 321) = 4.9	$p < 0.05$

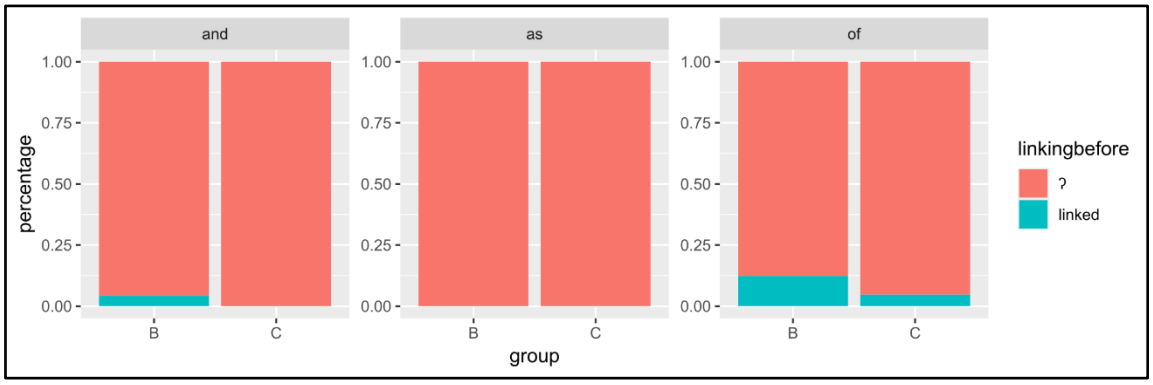

Figure 9. Frequency of linking in "and", "as", and "of" by groups.

Furthermore, all realizations of linking in “and” were performed by a single speaker. “of” shows some distribution across more speakers in both groups, as Figure 10 on the next page illustrates. One might speculate whether this higher incidence could be caused by the stable use of “of” with other words in partitive constructions. Expressions like “case of”, “one of”, “thousands of” and more appear throughout the read BBC Bulletins, which could lead to easier acquisition of the pronunciation as it is heard often in similar contexts. However, the occurrence is still too scarce and could even be coincidental – it also seems unlikely, as the

vowel reduction does not correlate with this practice. Nevertheless, this inadequate incidence points to an immense pronunciation issue that needs to be tackled.

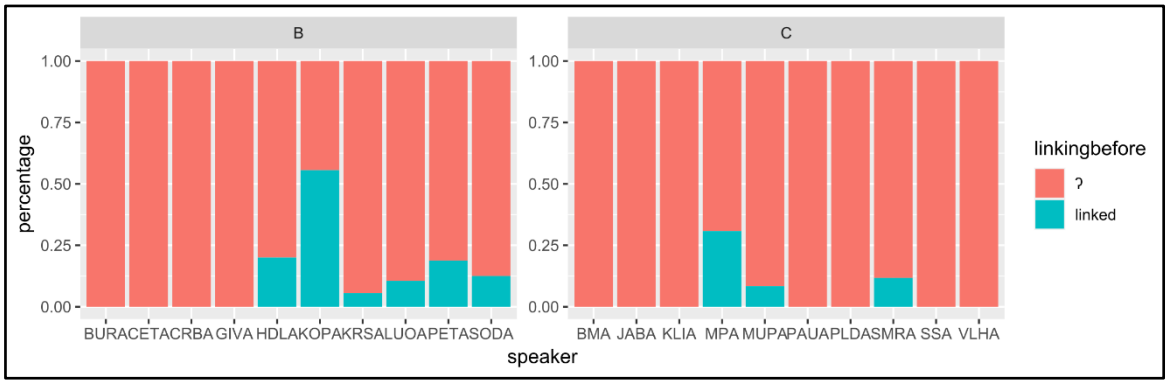

Figure 10. Ratio of linking in "of" by speakers

5 Conclusion

The purpose of the present thesis was to explore the field of connected speech, specifically weak-form grammatical words, and the handling of this important part of pronunciation by EFL speakers. In its focused analysis, this thesis was attempting to establish whether there is any connection between the strength of one's foreign (specifically Czech) accent and their ability to produce said weak forms.

The thesis opens with a theoretical section that sheds light onto speech rhythm and the role it plays in English language. The ensuing chapter clarifies how these rhythmical distinctions created specific rules for speaking, which were labelled as connected speech processes, and classifies into five different subgroups. The theoretical part concludes with an outline of research that has been conducted, concerning EFL teaching of connected speech processes and specifically weak-form words. From these findings, we constructed our hypothesis: the skill of reducing to weak forms is dependent on a speaker's overall accent level.

This premise was tested on twenty Czech female speakers, ten of which belonged to group B (a group with a recognizable but not very strong foreign accent in English) and group C (a group with a strong Czech foreign accent in English). These speakers were given a text and were recorded after they have familiarized themselves with the transcript. Pronunciation of 15 different words was analysed, establishing the realization of the target vowel, as well as presence or absence of the consonant. Linking of "and", "as", and "of" to the preceding words was also recorded. The variety of data allowed for many different conclusions to be drawn, although as they lead in many directions, they leave the general hypothesis not confirmed. However, it is suitable to consider the individual results.

Analysing the consonant in weak form words brought the least insight into this issue. It might be said that regardless of group, our participants completely avoid elision of word-initial [h]

in words like “he”, “her” and “have”, which does not confirm our hypothesis. In this sense, the only affirmative result came from inspecting the elision of [d] in “and”. The speakers of both groups mostly elided the word-final consonant, group B in around 85% and group C in 60% of all cases.

In contrast, acquired results of vowel reductions show clear tendencies. [e] in “and”, “as”, “had, has, have” and “that” dominates over [ə] almost entirely, without distinction of word or group, but all other analysed vowels show more reductions, if only partial, from group B than group C. Statistical tests for “of”, “to” and “was” confirm this, as well. Individual ratios of strong and weak realizations vary greatly, but the highest ratio difference, of around 60 percentage points, can be seen in “was”. Initial linking was overall immensely uncommon. Group B performed similarly to Group C (meaning, it did not link nearly at all) in “and” and “of” and performed slightly better in “of” (by 8 percentage points), which was confirmed to be significant by the χ^2 test.

The results presented here are surely unable to bring any clear conclusions that could be applicable to broader contexts; however, they do offer some operational outcomes that lead the way for further investigation. When studying consonants in weak form contexts, we would perhaps suggest a more controlled attitude towards the reading material. There are many variables (here namely linking and assimilation of place) that need to be taken into consideration, and if these problems were excluded from the read texts, results might become more conclusive. On the other hand, when recording speech read in a foreign language, participants might put more focus on other aspects of pronunciation, especially as they are likely aware of their other weaknesses more. Therefore, it might also be valuable to explore their natural behaviour in spontaneous speech.

Even though general implications of our results are problematic, we might contemplate, what they mean for our understanding of a level of "accent foreignness". Our findings never proved the hypothesis could be completely reversed; meaning the group with the typically Czech foreign accent never performed better than the ambiguous-accent group – it was either as good or as bad, at best. What plays a large part in classification is the overall impression a speaker's pronunciation makes on the evaluator. Hence, our results could hint at the possibility, that the incompetence to produce natural English rhythm through reducing grammatical words may be considered a typically Czech feature and will likely determine the speaker as belonging to group C.

However, speaker MPA of group C showed statistically above-average rates of reduction as well as linking than any other speaker from her group. There then must be some more significant pronunciation flaw that did not allow her to be perceived as a speaker of group B. Another hint at reductions actually having a lower degree of importance can be seen in speaker KRSA from group B. Her reduction rates are mostly below average for her group, likely meaning she qualified for it by having mastered some other feature very well.

Cases of MPA and KRSA may suggest that reducing is not so crucial after all and there are some accent labels that are more essential; it just does not seem to be a compulsory requirement in order to advance from group C to B. Although we have not touched on group A in this thesis whatsoever, it might be relevant to explore, whether this ability actually becomes a necessity for differentiating between groups B and A. In other words, for a Czech speaker of English to qualify as having a near-native like accent, is mastering weak forms of grammatical words an absolute must?

Nonetheless, as mentioned in section 2.3.1 of this thesis, Volín & Johaníková (2018) proved, that reducing to weak forms is indeed an overall issue that all Czech learners of English must

deal with. Regardless of which group our speakers belong to, the use of weak forms of grammatical words, suitable elision and linking was often very modest; this condition surely speaks in favour of accentuating these pronunciation practices in English languages classes; not just for native speakers of Czech, but around the world, too. Informing about processes of connected speech will only lead to the learners' improvement and hopefully, elimination of stigmatizing features they have carried over from their native languages into English.

References

1.3.6.7.4. Critical Values of the Chi-square Distribution. Retrieved Apr 24, 2020, from NIST/SEMATECH e-Handbook of Statistical Methods: https://www.itl.nist.gov/div898/handbook/eda/section3/eda3674.htm.

Alameen, G., & Levis, J. (2015). Connected speech. In M. Reed, & J. Levis, *Handbook of English Pronunciation* (pp. 159–174). Oxford: John Wiley & Sons.

Audacity Team (2018). Audacity®. Version 2.3.3. Retrieved Nov 13, 2019, from https://www.audacityteam.org/

Bjelaković, A. (2018). Harry Potter and the Glottal Stop: Glottal Replacement and T-Voicing in Contemporary RP. *Philologist – journal of language, literary and cultural studies* (18), pp. 138-153. Retrieved Dec 4, 2019, from https://www.ceeol.com/search/article-detail?id=759864.

Boersma, P., & Weenink, D. (2019). Praat: doing phonetics by computer [Computer program]. Version 6.01.08. Retrieved Dec 25, 2019, from http://www.praat.org/.

Brown, J. D., & Hilferty, A. (2006). The effectiveness on teaching reduced forms of listening comprehension. In J. D. Brown, & K. Kondo-Brown, *Perspectives on teaching connected speech to second language speakers* (pp. 51-58). Honolulu, HI: University of Hawai'i Press, National Foreign Language Resource Center.

Brown, J. D., & Kondo-Brown, K. (2006a). Introducing conneced speech. In J. Brown, & K. Kondo-Brown, *Perspectives on teaching connected speech to second language speakers* (pp. 1-15). Honolulu, HI: University of Hawai'i Press, National Foreign Language Resource Center.

Brown, J. D., & Kondo-Brown, K. (2006b). *Perspectives on teaching connected speech to second language speakers Honolulu,.* Honolulu, HI: University of Hawai'i Press, National Foreign Language Resource Center.

Cauldwell, R. (2002). The functional irrhythmicality of spontaneous speech: A discourse view of speech rhythm. *Apples – Journal of Applied Language Studies, 2* (1), pp. 1-24.

Celce-Murcia, M., Brinton, D. M., & Goodwin, J. M. (1996). *Teaching pronunciation: A reference for teachers of English to speakers of other languages.* Cambridge: Cambridge University Press.

Cruttenden, A. (2008). *Gimson's Pronunciation of English* (7th ed.). London: Hodder Education.

Dickerson, W. B. (2016). A practitioner's guide to English rhythm: A return to confidence. In J. Levis, H. Le, I. Lucic, E. Simpson, & S. Vo (Ed.), *Proceedings of the 7th Pronunciation in Second Language Learning and Teaching Conference* (pp. 39-50). Dallas: Iowa State University.

Dušková, L. et al. (2009). *Mluvnice současné angličtiny na pozadí češtiny. Electronic edition*. Retrieved Nov 23 2019, from Ústav anglického jazyka a didaktiky, FF UK: http://www.mluvniceanglictiny.cz

Euler, S. (2014). From communicative to task-based pronunciation teaching: Utilizing the power of rhythm and connected speech. *Speak Out!*(51), pp. 5-15.

Henrichsen, L. E. (1984). Sandhi-variation: A filter of input for learners of ESL. *Language, 34* (3), pp. 103-126.

Holmes, J. (1995). Two for [t]: flapping and glottal stops in New Zealand English. *Te Reo*(38), pp. 53-72. Retrieved Dec 4 2019, from http://search.ebscohost.com/login.aspx?direct=true&AuthType=ip,shib&db=ufh&AN=31459470&lang=cs&site=eds-live&scope=site

Isaacs, T. (2009). Integrating form and meaning in L2 pronunciation instruction. *TESL Canada Journal/Revue TESL du Canada 27*, pp. 1-12. Retrieved Dec 5 2019, from https://doi.org/10.18806/tesl.v27i1.1034.

Ito, Y. (2006). The comprehension of English reduced forms by second language learners and its effects on Input-Intake process. In J. D. Brown, & K. Kondo-Brown, *Perspectives on teaching connected speech to second language speakers*. Honolulu, HI: University of Hawai'i Press, National Foreign Language Resource Center.

Ivanov, D. (2015). Lexical and grammatical words in English –the double character of the word just in the English language. *Analele Universitatii Crestine Dimitrie Cantemir, Seria Stiintele Limbii,Literaturii Si Didactica Predarii / Annals of Dimitrie Cantemir Christian University- Linguistics, Literature* (2), pp. 43-52. Retrieved Dec 4 2019, from http://search.ebscohost.com/login.aspx?direct=true&AuthType=ip,shib&db=edscee&AN=edscee.535775&lang=cs&site=eds-live&scope=site

Kaźmierski, K., Wojtkowiak, E., & Baumann, A. (2016). Coalescent assimilation across word-boundaries in American English and in Polish English. *Research in Language, 14* (3). Retrieved Dec 4 2019, from https://doi.org/10.1515/rela-2016-0012

Lecumberri, M. L., & Maidment, J. A. (2000). *English Transcription Course.* London: Hodder Arnold Publication.

Machač, P., & Skarnitzl, R. (2009). *Principles of Phonetic Segmentation.* Praha: Nakladatelství Epocha.

Nolan, F., & Jeon, H.-S. (2014). Speech rhythm: a metaphor? *Philosophical Transactions of the Royal Society B, (11)*. Retrieved Apr 17 2019, from http://dx.doi.org/10.1098/rstb.2013.0396

Prator Jr., C. H. (1957). *Manual of the English Pronunciation* (3 ed.). New York: Holt, Rinehart and Winston.

R Team (2015). *RStudio: Integrated Development for R.* Boston, MA: RStudio, Inc. Retrieved from http://www.rstudio.com/

Roach, P. (1998). *English Phonetics and Phonology: A practical course.* Cambridge: Cambridge University Press.

Roberts, R. (2013). Connected speech: Helping teachers to join the dots. *Speak Out! (49)*, pp. 9–12.

Skarnitzl, R., & Rumlová, J. (2019). Phonetic aspects of strongly-accented Czech speakers of English. *Acta Universitatis Carolinae*, pp. 109-128.

Skarnitzl, R., Volín, J., & Drenková, L. (2005). Tangibility of foreign accents in speech: The case of Czech English. In A. Grmelová, L. Dušková, & M. Farrell, *2nd Prague Conference on Linguistics and Literary Studies Proceedings* (pp. 11-20). Praha: PedF UK.

Sung, J.-H. (2018). Individual Differences in Frequency Effects in English Palatalization. *The Journal of Studies in Language, 34*(2), pp. 197-213.

Underwood, P., & Wallace, P. (2012). The effects of instruction in reduced forms on the performance of low-proficiency EFL university students. *Asian EFL Journal, 14*(4), pp. 134-152.

Volín, J. (2006). *IPA-Based Transcription for Czech Students of English.* Praha: Nakladatelství Karolinum.

Volín, J. (2007). *Statistické metody ve fonetickém výzkumu.* Praha: Nakladatelství Epocha.

Volín, J. (2009). Fonetika a fonologie. In e. a. V. Cvrček, *Mluvnice současné češtiny (1. díl).* Praha: Karolinum.

Volín, J. (2010). On the significance of the temporal structring of speech. In M. Malá, & P. Šaldová, *...for thy speech bewrayeth thee* (pp. 289-305). Praha: Filozofická fakulta, Univerzita Karlova v Praze.

Volín, J., & Johaníková, T. (2018). Weak structural words in British and Czech English. In J. Volín, & R. Skarnitzl, *The Pronunciation of English by Speakers of Other Languages* (pp. 181-195). Newcastle upon Tyne: Cambridge Scholars Publishing.

Wickham, H. (2009). *ggplot2: Elegant graphics for data analysis*. New York: Springer.

Yuan, J., & Liberman, M. (2008). Speaker identification on the SCOTUS corpus. *Proceedings of Acoustics '08.* Version 1.003.

Zimmer, S. (2019). Rhythm. In *Salem Press Encyclopedia of Literature.* Retrieved Nov 4, 2019, from http://search.ebscohost.com/login.aspx?direct=true&AuthType=ip,shib&db=ers&AN=87320965&lang=cs&site=eds-live&scope=site

Shrnutí

Tato bakalářská práce si klade za cíl prozkoumat vztahy mezi jednotlivými realizacemi souvislé řeči u slabých forem gramatických slov a úrovní přízvuku angličtiny rodilých mluvčích češtiny. Za účelem orientace v této problematice jsou úvodem představeny a kategorizovány nejdůležitější pojmy, se kterými toto zkoumání pracuje, a zároveň jsou zmíněny i výsledky dosavadního výzkumu v oblastech, kde se tyto procesy prolínají s akvizicí angličtiny. Jedná se především o pojmy rytmus, přesněji *rytmus řečový*, a *souvislou řeč* s jejími jednotlivými typy.

S termínem *rytmus* se setkáváme v mnoha vědních i nevědních odvětvích a jeho definice je tedy obecně vcelku zřejmá; jedná se o schéma realizované v neomezeném množství opakování, ať už je to tříčtvrťový takt v hudbě, či jedoucí vlak. Lidé k rytmizaci svých činností přirozeně inklinují (Volín, 2010). Tato tendence vzniká pravděpodobně ještě před narozením, v blízkosti matčina bijícího srdce, které rytmus, jakkoli technicky nepravidelný, dodržuje (Zimmer, 2019).

I z tohoto důvodu začali vědci předpokládat přítomnost nějaké pravidelnosti v rytmu přirozené řeči. Prvním konceptem mluvního rytmu v angličtině byl dnes již přes šedesát let starý *tří pilířový model* renomovaných akademiků Pikea a Pratora (Prator, 1957). Tento model předpokládal, že každá slabika ve frázi souvislé řeči je jinak výrazná, slabiky s největším důrazem rozdělují přibližně stejně dlouhé časové intervaly a důraz má mít každé slovo nesoucí lexikální význam. Jak druhý, tak třetí pilíř byl od té doby v několika výzkumech vyvrácen, zato první, střídání důrazu, byl naopak potvrzen a pracují s ním i novější koncepce, které se snaží podstatu anglického mluvního rytmu podchytit o něco lépe.

Patel (2008; citováno v Nolan & Jeon, 2014) a Nolan & Jeon (ibid.) se shodují, že pravidelnost anglického rytmu bude spočívat spíše v alternaci různě důrazných slabik než

v přesně a systematicky načasovaném střídání určitých prvků. S touto představou souhlasí také Dickerson (2016) a využívá ji ve svém upraveném vzoru anglického mluvního rytmu, který navíc vychází i ze zjištění, že většina anglických frází má jeden nebo dva hlavní důrazy (Pike, 1945; citováno v Dickerson, 2016; Cauldwell, 2002). Dickerson (2016) se tuto skutečnost rozhodl připodobnit ke *dvouvrcholovému horskému štítu* (two-peak profile), jehož špičky zastupují hlavní důrazy a údolí okolo nich slabiky s méně prominentním či vůbec žádným výrazem.

Tento model je čerstvou, avšak úspěšnou alternativou k vyvrácenému konceptu tří pilířů Pikea a Pratora. V jazykových kurzech si ovšem i přes svou nekorektnost drží stará definice místo dodnes; především proto, že mnoho studentů potřebuje praktické a jednoduché cvičení, které je přesvědčí, že střídání důrazu v anglické výslovnosti vůbec existuje (Roach, 1998; Roberts, 2013).

Při kontrastování určitých prvků však nevyužíváme pouze zdůrazňování částí významných, ale naopak i oslabování těch nevýznamných (Roach, 1998; Nolan & Jeon, 2014; Alameen & Levis, 2015; Dickerson, 2016). Potřeba dodatečného oslabení slabik často ústí v úpravu výslovnosti slov v izolované podobě, která může být velice zásadní; zvuk může být vypuštěn, přidán nebo i jednoduše změněn (Alameen & Levis, 2015).

Rozdíly, které vznikají ve výslovnosti slov ve spojitém projevu, byly pojmenovány *souvislá řeč*. Procesů, kterými se souvislá řeč projevuje, je několik a stejně tak i jejich klasifikací. Tato bakalářská práce následuje dělení podle Alameena & Levise (2015), kteří rozlišují mezi pěti hlavními skupinami procesů: *modifikace*, *vázání*, *vložení*, *vypuštění*, a *redukce*.

Mezi *modifikace* se počítají situace, ve kterých je jeden foném nahrazen jiným na základě přizpůsobení svému okolí. Nejvýraznějším zástupcem této kategorie je asimilace, Alameen Levis (2015) zmiňují i *palatalizaci*, *glotalizaci* a *alveolární verberantu*. Na rozdíl od

některých kolegů (Roach, 1998; Brown & Kondo-Brown, 2006a) mezi *vázání* Alameen & Levis (2015) řadí jen spojení, které nemění segmentální identitu zúčastněných slov.

I z tohoto důvodu zavádí Alameen & Levis (ibid.) speciální kategorii *vložení*, do které dle jejich názoru patří procesy epenteze jako *pojivé (linking)* a *intrusivní (intrusive) /r/*, podle Volína (2006) a Cruttendena (2008) i *přechodné /j/* a */w/*. Pod termín *vypuštění* spadají dva procesy. Jedním z nich je kontrakce. Ta bývá často pro studenty angličtiny prvním náhledem do světa souvislé řeči, aniž by o tom vůbec věděli. Druhým je *elize* postihující převážně /h/ a podle Roache (2008) a Cruttendena (2008) v určitých případech i /t/ a /d/.

Lexikální slova, ať akcentována, nebo ne, v souvislé řeči výrazně nemění svou segmentální identitu (Cruttenden, 2008). Naopak gramatická slova (v našem případě předložky, spojky, zájmena a pomocná slovesa), většinově ta jednoslabičná, jsou v kontextu frází a vět typicky redukována, tedy se proměňují realizace jejich samohlásek i souhlásek (ibid.). Jelikož tak pro tato slova vzniká více způsobů výslovnosti, přezdívá se segmentální verzi *silná* a redukované *slabá* forma gramatického slova. Slova ve slabé formě jsou ve frázi nejméně prominentní, velice krátká a jejich samohláska se mění na šva či na jiný polozavřený vokál.

Procesy souvislé řeči nerodilým mluvčím porozumění rozhodně neulehčují. Ito (2006) potvrdila, že studenti angličtiny rozumí promluvě, která užívá slabé formy hůře než té, ve které se nevyskytují. Je tedy zásadní tyto postupy řádně vyučovat; několik výzkumů navíc potvrdilo, že se žáci, kterým jsou procesy představeny, v této schopnosti rapidně a stabilně zlepšují (Brown & Hilferty, 2006; Underwood & Wallace, 2012). Dá se předpokládat, že i čeští mluvčí by z takových poučení mnoho vytěžili, protože čeština standardně nemá redukované samohlásky a je pro ně tedy náročné v anglickém jazyce tento návyk upravit. Tuto domněnku potvrdili Volín & Johaníková (2018). Ve svém výzkumu porovnávali schopnost redukce u českých a rodilých mluvčích angličtiny a česká skupina se k anglické

příliš nepřiblížila. Je však záhodné prozkoumat, zda není schopnost závislá i na samotné úrovni výslovnosti nerodilého mluvčího. Na základě této pohnutky jsme zkonstruovali naši obecnou hypotézu: rodilí mluvčí češtiny s neurčitým anglickým přízvukem redukují gramatická slova na jejich slabé formy více než mluvčí s typicky českým přízvukem.

Empirická část této bakalářské práce tedy spočívala na kvalitativní analýze nahrávek, které byly vybrány z Pražského fonetického korpusu Fonetického ústavu při Filozofické fakultě Univerzity Karlovy. Náhodně bylo vybráno dvakrát po deseti mluvčích, výhradně žen, jednou ze skupiny s lepším (B) a jednou s horším přízvukem (C), jak stanovil výzkum Skarnitzla et al. (2005). Pro účely této práce jsme vybrali 19 slov, u nichž jsme očekávali, že budou hojně zastoupené a jejich rozbor nebude příliš komplikovaný: *and*, *as*, *can*, *could*, *for*, *from*, *had*, *has*, *have*, *he*, *her*, *him*, *his*, *of*, *should*, *some*, *that*, *to*, *was*, *were*. Zájmena i variace slovesa *have* byla spojena do dvou samostatných setů a nahlížena společně. Následně jsme se rozhodli v příhodných kontextech zaznamenat realizaci samohlásky, koncové, či počáteční souhlásky a vázání na okolní slova. Analýza individuálních provedení byla uskutečněna v programu Praat (2019) a data byla statisticky zpracována v RStudiu (2005).

Z výsledků byla nejdříve vyřazena ta slova, jejichž četnost nebyla dostačující: *can*, *could*, *should*, and *some*. Dále jsme se ze stejného důvodu rozhodli nezahrnovat výsledky vázání slova následující. Ze zbylých velice rozmanitých výsledků se nedají vytvářet žádné obecné závěry, jelikož se trendy lišily slovo od slova a zároveň i v rámci více zkoumaných jevů v jednom slově samotném. Dílčí výsledky však přinesly několik zajímavých podnětů, které je záhodno popsat. Protože mluvčí užívali převážně české vokály místo anglických, ve výstupech níže zmiňujeme hlavně tyto skutečné realizace (jde typicky například o [o] místo [ɒ] a [e] místo [æ]).

Hypotéza se potvrdila u redukování vokálu [o]. Skupina B ve všech třech slovech (*from*, *of*, a *was*) samohlásku redukovala více a tento rozdíl potvrdily i statistické testy. Naopak u vokálu [e] (ve slovech *and*, *as*, *had*, *has*, *have* a *that*) se žádný trend nepotvrdil. V obou skupinách značně dominovala výslovnost v plné formě. U dlouhých vokálů [o:], [u:] a [e:] (ve slovech *for*, *to* a *were*) se ukázalo, že účastníci zachovávali silnou formu jen zřídka a spíše se uchylovali ke částečně zkráceným [o], [u] a [e]. Tendence k úplnému redukování se statisticky potvrdila u slova *to*, ačkoliv nebyla slabá forma obecně použitá tak často, jako v případě *of*.

Z výsledků souhlásek je záhodno zmínit hlavně potvrzení hypotézy u výslovnosti [d] v *and*. Jeho elize byla obecně častá (souhrnně ve více než v 75 % případů). Zkoumání ostatních hlásek – jmenovitě [r] ve *for*, *from* a *were*, [z] ve *as* a [t] v *that* – hypotézu ani nepotvrdilo, ani nevyvrátilo. Vázání *and*, *as* a of bylo obecně použito minimálně a pouze u slova *of* se potvrdil rozdíl mezi skupinami podle hypotézy. Skupina B však vázala pouze v 12 % případů, což se nedá považovat za celkový úspěch.

Jak již bylo řečeno, z výsledků se pro jejich rozmanitost nedají vyvozovat závěry pro širší kontext, než jsou naše mluvčí. Mohou však poukázat na významnou potřebu výuky procesů souvislé řeči v každém kurzu angličtiny. Poučení studentů o jejich fungování povede s vysokou pravděpodobností k význačnému zlepšení.